

Appln. No. 09/243,030  
Amdt. dated October 4, 2004  
Reply to Office action of December 11, 2003

Amendments to the Claims:

This listing of the claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-21 (Cancelled)

22 (Previously Presented). The method of claim 37 in which the effective dose of interferon is administered in a single dose.

23 (Previously Presented). The method of claim 37, in which the effective dose of interferon is administered in a plurality of smaller doses over a period of time sufficient to elicit a response equivalent to that of a single dose.

24 (Previously Presented). The method of claim 37, in which an effective dose of interferon is administered continuously over a period of time sufficient to elicit a response equivalent to that of a single dose.

25 (Previously Presented). The method of claim 37, wherein the interferon comprises a Type I interferon.

26. (Previously Presented) The method of claim 25, wherein the interferon is selected from the group consisting of IFN- $\alpha$ , IFN- $\beta$ , IFN- $\omega$ , consensus IFN, and mixtures thereof.

27. (Previously Presented) The method of claim 26, wherein the IFN- $\alpha$  comprises recombinant IFN- $\alpha$ .

28 (Previously Presented). The method of claim 37, wherein the interferon comprises a Type II interferon.

29. (Previously Presented) The method of claim 28, wherein the Type II interferon comprises IFN- $\gamma$ .

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30 (Previously Presented). The method of claim 37, wherein the dose of interferon is up to about  $1000 \times 10^6$  IU of interferon.

31 (Previously Presented). The method of claim 37, wherein the dose of interferon is up to about  $500 \times 10^6$  IU of interferon.

32 (Previously Presented). The method of claim 37, wherein the dose of interferon is from about  $50 \times 10^6$  IU to about  $500 \times 10^6$  IU of interferon.

33 (Previously Presented). The method of claim 37, wherein the viral infection is selected from the group consisting of rhinovirus, influenza, herpes varicella, herpes zoster, dengue fever, viral encephalitis, haemorrhagic fever, genital herpes, equine morbillivirus, hepatitis B, hepatitis C, hepatitis D, CMV, HIV, HPV, HSV-I and HSV-2.

34 (Previously Presented). The method of claim 33, wherein said viral encephalitis is selected from the group consisting of measles virus encephalitis, Murray Valley encephalitis, Japanese B encephalitis, tick-borne encephalitis and Herpes encephalitis.

35 (Previously Presented). The method of claim 33, wherein said haemorrhagic fever is selected from the group consisting of Ebola virus, Marburg virus, Lassa fever, and Hanta virus infections.

36 (Currently Amended). A method for treating a viral infection, which method comprises administering to the mammal having such a viral infection an effective amount of

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greater than about  $20 \times 10^6$  IU of interferon for a 70 kg human via oromucosal contact, said amount being in excess of a dose of the same interferon which induces a pathological response when parenterally administered, said oromucosal administration being in a manner which does not involve direct action of the interferon on virally infected cells, and wherein the interferon does not enter the bloodstream, and provided that when the viral infection is a rhinoviral infection, the interferon is not delivered orally in a multiple or continuous dose.

37 (Currently Amended). A method for treating a viral infection, which method comprises administering to the mammal having such a viral infection greater than about  $30 \times 10^6$  IU of an interferon via oromucosal contact, said amount being in excess of a dose of the same interferon which induces a pathological response when parenterally administered, said oromucosal administration being in a manner which does not involve direct action of the interferon on virally infected cells, and where the interferon does not enter the bloodstream.

38 (Previously Presented). The method of claim 36 in which the effective dose of interferon is administered in a single unit dose, which is not a plurality of smaller doses administered over a period of time sufficient to elicit a response equivalent to that of a single unit dose, and is not administered continuously over a period of time sufficient to elicit a response equivalent to that of a single unit dose.

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39 (Previously Presented). The method of claim 36, in which the effective dose of interferon is delivered intranasally, in a plurality of smaller doses over a period of time sufficient to elicit a response equivalent to that of a single unit dose.

40 (Previously Presented). The method of claim 36, in which an effective dose of interferon is delivered intranasally continuously over a period of time sufficient to elicit a response equivalent to that of a single unit dose.

41 (Previously Presented). The method of claim 36, wherein the interferon comprises a Type I interferon.

42 (Previously Presented). The method of claim 41, wherein the interferon is selected from the group consisting of IFN- $\alpha$ , IFN- $\beta$ , IFN- $\omega$ , consensus IFN, and mixtures thereof.

43 (Previously Presented). The method of claim 42, wherein the IFN- $\alpha$  comprises recombinant IFN- $\alpha$ .

44 (Previously Presented). The method of claim 36, wherein the interferon comprises a Type II interferon.

45 (Previously Presented). The method of claim 44, wherein the Type II interferon comprises IFN- $\gamma$ .

46 (Previously Presented). The method of claim 36, wherein the dose of interferon is up to about  $1000 \times 10^6$  IU of interferon.

47 (Previously Presented). The method of claim 36, wherein the dose of interferon is from up to about  $500 \times 10^6$  IU of interferon.

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48 (Previously Presented). The method of claim 36, wherein the dose of interferon is from about  $50 \times 10^6$  IU to about  $500 \times 10^6$  IU of interferon.

49 (Previously Presented). The method of claim 36, wherein the viral infection is selected from the group consisting of rhinovirus, influenza, herpes varicella, herpes zoster, dengue fever, viral encephalitis, haemorrhagic fever, genital herpes, equine morbillivirus, hepatitis B, hepatitis C, hepatitis D, CMV, HIV, HPV, HSV-I and HSV-2.

50 (Previously Presented). The method of claim 49, wherein said viral encephalitis is selected from the group consisting of measles virus encephalitis, Murray Valley encephalitis, Japanese B encephalitis, tick-borne encephalitis and Herpes encephalitis.

51 (Previously Presented). The method of claim 49, wherein said haemorrhagic fever is selected from the group consisting of Ebola virus, Marburg virus, Lassa fever, and Hanta virus infections.

52 (New). A method for treating a viral infection other than a rhinoviral infection, which method comprises administering to the mammal having such a viral infection an effective amount of greater than about  $20 \times 10^6$  IU of interferon for a 70 kg human via oromucosal contact, said amount being in excess of a dose of the same interferon which induces a pathological response when parenterally administered, said oromucosal administration being in a manner which does not involve direct action of the interferon on

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virally infected cells, and wherein the interferon does not enter the bloodstream.

53 (New). The method of claim 52, wherein the viral infection is selected from the group consisting of influenza, herpes varicella, herpes zoster, dengue fever, viral encephalitis, haemorrhagic fever, genital herpes, equine morbillivirus, hepatitis B, hepatitis C, hepatitis D, CMV, HIV, HPV, HSV-I and HSV-2.

54 (New). The method of claim 52, wherein said viral encephalitis is selected from the group consisting of measles virus encephalitis, Murray Valley encephalitis, Japanese B encephalitis, tick-borne encephalitis and Herpes encephalitis.

55 (New). The method of claim 52, wherein said haemorrhagic fever is selected from the group consisting of Ebola virus, Marburg virus, Lassa fever, and Hanta virus infections.

56 (New). The method of claim 52, wherein the interferon comprises a Type I interferon.

57 (New). The method of claim 52, wherein the interferon comprises a Type II interferon.